Fall 12-10-2018

Scheduling Autonomy for Nursing Staff Retention

Gina Fungcharoen
gfungcharoen@dons.usfca.edu

Gina Fungcharoen

Providing Scheduling Autonomy for Nurses

Gina Fungcharoen

University of San Francisco

Providing Scheduling Autonomy for Nurses

Abstract

It is the obligation of the Clinical Nurse Leader to place their skills up against the pulse of the microsystem they work within. This nursing leader is in a position to observe and react to flaws that affect their specific workforce. This microsystem project will provide an evidence-based perspective on how to improve monthly scheduling within the unit of 4 South, Surgical Intensive Care. The intent is to increase nurse retention as a function of improved scheduling efforts, allowing staff the ability to manage their own exchange of shifts while addressing the daily staffing needs of the unit. Despite efforts to work towards this goal, the most recent data has shown that 20 nurses have left the unit since January 2018. Continuing efforts to evolve with the needs of staff has been a challenge of this project, as it has not demonstrated the goals intended. This has been an especially difficult task with the sudden switch to central online scheduling which the macrosystem launched within the last month of this update.

Introduction

Morale within 4 South, Surgical Intensive Care Unit at Mayo Clinic Jacksonville, has been compromised since March 2017 when the nurse manager was replaced. This period of time coincided with an exodus of two nurses per month, on average, adding to the current deficit of thirty six nurses. Reasons for leaving were sampled from staff, the clear front runner being work schedule related. The strain on the remaining staff has been excruciating, leaving a gap in available staff. This adds to the modifications to scheduling that have been adjusted several times in the past year, which has led to greater disappointment among staff.

Problem description

This project seeks to accommodate for greater autonomy on behalf of the nursing staff and their ability to make their own schedule, while simultaneously fulfilling the needs of the unit. It is this indirect care of patients that is examined here, in order to ensure that staff feels supported within the organization. At the beginning of this project, the draft scheduling system was handwritten. With the exception of PRN staff, weekends and holidays were pre-assigned each year. Staff were free to fill in the remainder of their schedule. A designated staff scheduler within the unit reviewed this draft, ensuring that each shift was balanced based on the average needs of the unit. This scheduler maintained a list of staff requests, including vacation time and schedule preferences, throughout the calendar year. Once the final schedule was released, additional unit needs were published to a private Google calendar for staff use only. On this calendar, staff were free to exchange shifts as they please, with each exchange cross-checked by the shift team leader to strive for balance within the schedule. If paid time off is desired, notification of the team leader was required to ensure staffing for the day. Callouts were added to the Google calendar so that staff wishing to work overtime may pick up the shift. An additional format through a private Facebook account for staff was used to post staff exchange requests in addition to updating the Google calendar, with those available to exchange contacting staff individually to verify.

In June of 2018, the macrosystem of Mayo Clinic Florida adopted a web-based scheduling system which 4 South was also mandated to use. In doing so, the central staffing department became the monitors of the system. This essentially forced 4 South to begin anew. The components of this project that have remained are still being utilized.

A simultaneous conversation regarding staffing needs must be acknowledged here. With the full capacity of 27 beds, nursing staff must be represented at a ratio of 14 nurses and one PCT per twelve hour shift. To accomodate for acuity within the unit and new surgical cases each weekday, this staffing ratio can stretch to 18 nurses and two PCTs. A total of 98 nurses are on staff. Full-time equivalents include 0.9, 0.75, 0.6, 0.5, and 0.0 for PRN staff. A staffing needs matrix is provided in Appendix A.

Nursing relevance

By improving the process or delivery of care through evidence-based modifications in the scheduling process, the staff of 4 South will have the ability to control their own schedule while meeting the needs of the unit. The specific aim of the project is to improve performance by increasing staff satisfaction within the current scheduling routine. Quality standards of care will be upheld at the bedside. Staff conducting the project is a student of University of San Francisco in the School of Nursing program, with permission as a clinical site. The clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care.

From March 2017 until now, the staff of 4 South has experienced nursing turnover at a rate of 16.3% of those previously employed. Discussions among staff have ranged from varying degrees of dissatisfaction with management. Although some have left to pursue opportunities created from graduate level degrees, the majority have left related to job dissatisfaction. One overwhelming component that continues to effect the current staff base, relates to scheduling. The current nurse manager eliminated the previous self-scheduling model called When To Work, which included a mobile app, and was well received and well liked. It allowed staff to see their schedule at a glance while trading shifts as needed.

The current self-scheduling model is communicated to central staffing for the organization. Trade of shifts and paid time off is often denied, along with more specific requests as when individuals prefer to work every weekend. From Koning (2014), the absence of freedom within work schedules contributes to job dissatisfaction. If the needs of staff are not met, the needs of the unit cannot be met. It is the responsibility of leadership to support the work and home life balance. Staff will find leadership accountable for deviations from these intentions.

Available knowledge

From Wright, McCartt, Raines, and Oermann, job satisfaction is the most significant predictor of nurse retention (2017). Inflexible scheduling contributes to this dissatisfaction. However, autonomy given to nurses has the opposite effect, as a moderate predictor of job satisfaction. In the face of continuous nursing shortages worldwide, the cost for orientation of new nurses and overtime costs compile to nearly $373,000. The attention, then, becomes a focus on how to retain good nurses. In order to do this, the work-life balance for nursing staff must be acknowledged.

From Bailyn, Collins, and Song (2007), nurses felt they provided better care for their patients knowing that they were in control of their own time related to self-scheduling. Duffield, Roche, Blay, and Stasa (2011) examined 21 hospitals in Australia who utilized flexible work schedules and were received as good leaders. Also, the American Nurses Association supports nursing in their endeavors to create specific staffing plans that are flexible and will account for changes (American Nurses Association, 2018). The 42 Code of Federal Regulations (42CFR 482.23(b) requests that nursing staff and their nursing support have adequate numbers to provide

care to all patients as needed (U.S Government Publishing Office, 2011). From Hung (2002), self scheduling is described as a potent employee empowerment tool.

The success of any improvement project hinges on the intentions of the leadership. The overall goals can be one thing for staff and have another meaning to leadership. The end result here is improved morale and a belief that there is support within an organization. Anything less than this puts the system out of control. By allowing staff more of a say within their work life, we endeavor to create a happy medium. Knowing that we do not work the traditional nine to five makes it challenging to sustain a system that operates 24 hours per day. We acknowledge the challenge here and suggest that there are better ways to operate within the staffing needs matrix (Appendix A).

The following is a PICO format (King & Gerard, 2016) for evidence-based models of improvement within this project:

P: Nurse retention as a function of autonomous self-scheduling. Focus on nursing staff in the Surgical Intensive Care Unit and the ability to obtain desired work schedules from one scheduling period to the next. Striving to maintain the ideal schedule at all times.

I: In addition to meeting the needs of the unit by balancing each schedule with the number of nurses needed per shift, allowing staff a period of self-scheduling to modify/correct their own draft of days prior to the final schedule being released. This self-correction by staff will be utilized through a Google Calendar for the staff of 4 South, Surgical Intensive Care Unit, allowing exchanges of shifts beyond the final draft schedule. An even exchange of shifts is allowed without managerial approval.

C: Previous approaches to scheduling included a written draft schedule that was submitted to the

nurse manager assistant for balancing. Any imbalance in the schedule (too many or too few nurses scheduled per shift) resulted in arbitrary shuffling of nurses to accommodate the needs of the unit, without any discussion with staff as to who was being moved. This resulted in overall frustration and upset within the unit among staff who did not receive the schedule they requested. The strain of new management accompanied a turnover rate of two nurses per month for a period of one year, most often associated with scheduling concerns.

O: The focus is to eliminate the burden of undesired scheduling adjustments as a function of balancing each shift. Through autonomous self-scheduling, every effort will be made to acknowledge each shift exchange or request with regard to the staff member. The end goal is staff satisfaction and retention.

Rationale

The goal of this project is to remedy some of that strain by creating an element of self-scheduling that is flexible enough to accomodate for individual changes, allowing for greater control and satisfaction among staff. The current process may include scenarios where one nurse would like to work a different day than what is scheduled. In asking staff if they would be available, one nurse agrees to switch the shift for an even exchange of shifts. The request must be finalized by the nurse manager, who then rejects the request since it is an exchange of a Saturday for a Monday. This project is meant to target this exact scenario, whereby making it possible to rearrange schedules.

Theories of change show the complexity of reaching goals that were not initially anticipated (Dhillon & Vaca, 2018). We cannot be expected to know what all the hurdles are in the very beginning, when the nursing staff and unit models are being created. Through a process

of elimination, we can arrive at the best model for accomplishing the staff satisfaction that we all yearn for. Kellogg and Walczak (2007) reinforce the complexity of sustaining processes in their discussion of how academics have attempted to create a solution. It is not an easy algorithm that can be inserted into the practical needs of scheduling for a unit. They argue that nurses have much more happening when it comes to meeting the needs of the unit and at home.

The data search and review of literature yielded more information on the subject than was initially expected. The idea of self-scheduling, striving to meet the needs of staff, has been discussed for many years. The strategy behind the search was to go where the most interesting information was, being led in directions not anticipated, and allowing the database to reveal what has already been learned.

Global Aim Statement

We aim to improve the scheduling process on 4 South – SICU. The process begins with each four week draft scheduling period whereby nursing staff input their desired dates of shifts. The process ends each four week draft scheduling period as central staffing reviews for balance before the final scheduled is published. By working on the process, we expect (1) to have an autonomous and independent scheduling period for nursing staff to exchange shifts on a voluntary basis, (2) to eliminate the strain of undesired shifts. By creating an element of self-scheduling within the current process, (3) there will be enough flexibility to accommodate for individual changes. This (4) will allow for greater control and satisfaction among staff. It is important to work on this now because (1) job satisfaction is the most significant predictor of nurse retention, (2) nurses are able to provide better care for their patients knowing that they are in control of their own time related to self-scheduling.

Methods

The current self-scheduling system in 4 South requires staff to sign up for days of work, one calendar month at a time. Each designation, from 0.50 to 0.90 full time equivalents, are assigned to either A, B, or C weekend prior to receiving the new draft schedule. Additional days, according to FTE designation, are self-scheduled by each staff member. The PRN staff are also required to work one weekend per schedule, with at least two shifts per pay period required. In addition, minor and major holidays are assigned on a rotating schedule based on the required A, B, or C weekend.

On average, fourteen nurses are required to staff this 27 bed unit every twelve hour shift, at a ratio of two patients per nurse. These requirements change based on the needs of the unit in terms of surgical cases for the day, emergency department admissions, and rapid response transfers. Fresh heart surgery patients often have one designated nurse open to receive them from the operating room. In addition, one bed is designated as the stroke bed, or open admission. Therefore, one nurse will have this open bed every shift, or will have only one patient until that admission potential is fulfilled. Up until that point, this nurse can act as a resource to assist staff by hourly rounding within the unit.

Since the change in nurse management, patient care technicians have also left employment. Where there were ten total available PCTs, there are now just five. Per shift, there were previously scheduled two PCTs. Now, there may only be one or none, depending on call-outs or requirements for the PCT to serve as a sitter for fall risk patients.

These developments in staff exodus and changes in scheduling processes each shift has led to difficulties in maintaining safe staff ratios within the unit. With inadequate staff, nurses

have been forced to care for three ICU patients that may be paired according to acuity, but nevertheless create unsafe situations as it relates to each nurse and each patient. Without the support of adequate PCTs per shift, nursing has also been tasked with the responsibility of all Activities of Daily Life, in addition to their nursing tasks. For the ICU patient who is a total assist, this demands additional constraints in getting patients in and out of bed, feeding them, and cleaning them up after bowel movements. The result has been complete exhaustion at the end of shift in a job that is already sufficiently demanding. Additional structured tools include SWOT analysis (Appendix B) and return on investment (Appendix C).

Intervention

The CNL introduced the project goals and intentions to the Nurse Manager beginning January 2017. Review of problem areas focused on staff turnover in a realtime analysis became a basis of the project. The microsystem assessment was formatted from the Dartmouth Microsystem Assessment tool (Institute for Healthcare Improvement, 2018a). Current staffing mix was derived from this tool.

The CNL is the leader of the improvement team. By utilizing the huddle format of disseminating information, the CNL provides updates and adjustments to the tests of change. Here, the PDSA Cycle is utilized (Institute for Healthcare Improvement, 2018b).

Aim: Self-scheduling autonomy among nursing staff of 4 South to reduce turnover within the unit, providing consistent nursing care to patients.

Plan: Provide online format, separate from current scheduling protocol, for continuous exchange of shifts and as a reference for nursing staff. This self-scheduling format is through a private Google calendar and private Facebook group.

Do: Nursing staff will post shifts that they are available to work or exchange to the Google calendar and the Facebook group. If Paid Time Off (PTO) is desired, requests will be forwarded to the Nurse Manager per protocol. If PTO is denied, requests to cover shifts will proceed according to the self-scheduling format of this project. Communication from team leaders and nurse manager will alert staff of additional staffing needs, allowing for extra shifts and overtime. Any deficits in nursing staff will be shared with the sister unit of 4 North, to open the availability of nursing staff for floats.

Study: Staff utilize new online format while maintaining balance to staffing needs of each shift.

Act: Each monthly draft schedule will continue to be revised as desired by staff.

Measures

From the Institute for Healthcare Improvement (2018b), there are three types of measures used to analyze improvement projects. These are outcomes, process, and balancing measures. Outcome measures answer how stakeholders are affected by tests of change. Stakeholders for this project include patients and nursing staff. Process measures evaluate how the tests of change compare to their intended purpose. They answer the question of whether the steps taken have contributed to improvement. Balancing measures evaluate whether new problems were uncovered. This information is condensed into Appendix E.

Ethical considerations

The potential problem is that I will not be able to intervene as I had anticipated, as we are still learning how this newly implemented online scheduling process works. We have only

experienced two scheduling period with this new process, so those kinks are still being worked out. Staff still have a lot of trepidation in getting the schedule that they want and as they have requested it. For my part, I will continue to troubleshoot from the unit standpoint, in getting staff the time off that they want without having to call-out or find another job. The goal is still to decrease staff turnover. I will just need to consider central staffing in a way that I never have before, understanding that their role in scheduling is much different than the personal attention that I have intended for the unit's autonomy.

At the beginning of the summer, a system-wide conversion to WebScheduler has created a conversation with central staffing. This makes them aware of the staffing needs at a glance for each unit. Balancing the schedule involves a visual tally of each shift and date, allowing a period of time for each unit to voluntarily exchange shift requests to meet the daily anticipated needs of the unit. We have since incorporated this system into our autonomous scheduling goals to decrease staff turnover.

References

American Nurses Association. (2018). *Nurse staffing*. Retrieved from https://www.nursingworld.org/practice-policy/advocacy/state/nurse-staffing/

Bailyn L., Collins R., Song Y. (2007). Self-scheduling for hospital nurses: An attempt and its difficulties. *Journal of Nursing Management, 15*(1), 72–77.

Bureau of Labor Statistics, U.S. Department of Labor. (2018). *Occupational outlook handbook, registered nurses*. Retrieved from https://www.bls.gov/ooh/healthcare/registered-nurses.htm

Dhillon, L., & Vaca, S. (2018). Refining Theories of Change. *Journal of Multidisciplinary Evaluation, 14*(30), 64-87.

Duffield C. M., Roche M. A., Blay N., Stasa H. (2011). Nursing unit managers, staff retention and the work environment. *Journal of Clinical Nursing, 20*(1–2), 23–33.

Finkler, S., Kovner, C., & Jones, C. (2007). *Financial management for nurse managers and executives* (3rd ed.). St Louis, MO: Saunders.

Hung, R. (2002). A Note on Nurse Self-Scheduling. *Nursing Economic$, 20*(1), 37.

Institute for Healthcare Improvement (IHI). (2018a). *Clinical microsystem assessment tool*. Retrieved from http://www.ihi.org/resources/Pages/Tools/ClinicalMicrosystemAssessmentTool.aspx

Institute for Healthcare Improvement (IHI). (2018b). *Science of improvement: Testing changes*. Retrieved from http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementTestingChanges.aspx

References

Kellogg, D. L., & Walczak, S. (2007). Nurse scheduling: from academia to implementation or not?. *Interfaces,* (4), 355.

King, C., & Gerard, S.O. (2016). *Clinical nurse leader certification review* (2nd ed.). New York, NY: Springer Publishing.

Koning, C. (2014). Does self-scheduling increase nurses' job satisfaction? An integrative literature review: Flexible work patterns can be beneficial for staff and employers. Clare Koning sets out the important factors to consider. *Nursing Management,* (6), 24. doi:10.7748/nm.21.6.24.e1230

Nelson, E.C., Batalden, P.B. & Godfrey, M.M. (2007). *Quality by design: A clinical microsystems approach*. San Francisco, CA: Jossey-Bass.

Nursing Productivity Benchmark Generator. (2018). *Total HPPD for critical care*. (Retrieved from https://dag.advisory.com/2014_B_NUBI_BGFramework/Main/GetSession/?var=917910FF-D016-4149-BB43-DD6666801BC0

U.S. Government Publishing Office. (2011). *Condition of participation: Nursing services*. Retrieved from https://www.govinfo.gov/content/pkg/CFR-2017-title42-vol5/pdf/CFR-2017-title42-vol5-sec482-23.pdf

Wright, C., McCartt, P., Raines, D., & Oermann, M. H. (2017). Implementation and evaluation of self-scheduling in a hospital system. *Journal for Nurses in Professional Development*, *33*(1), 19-24.

Appendix A

4 South RN Staff

FTE (Full-time equivalent)	Number of nurses
1	1
0.9	40
0.75	35
0.6	13
0.5	1
0.0 (PRN)	8

Total nursing staff = 98

Total hours of care provided to 27 patients is hours within a 24-hour period, Average patients per day = 26 (96.3 occupancy)

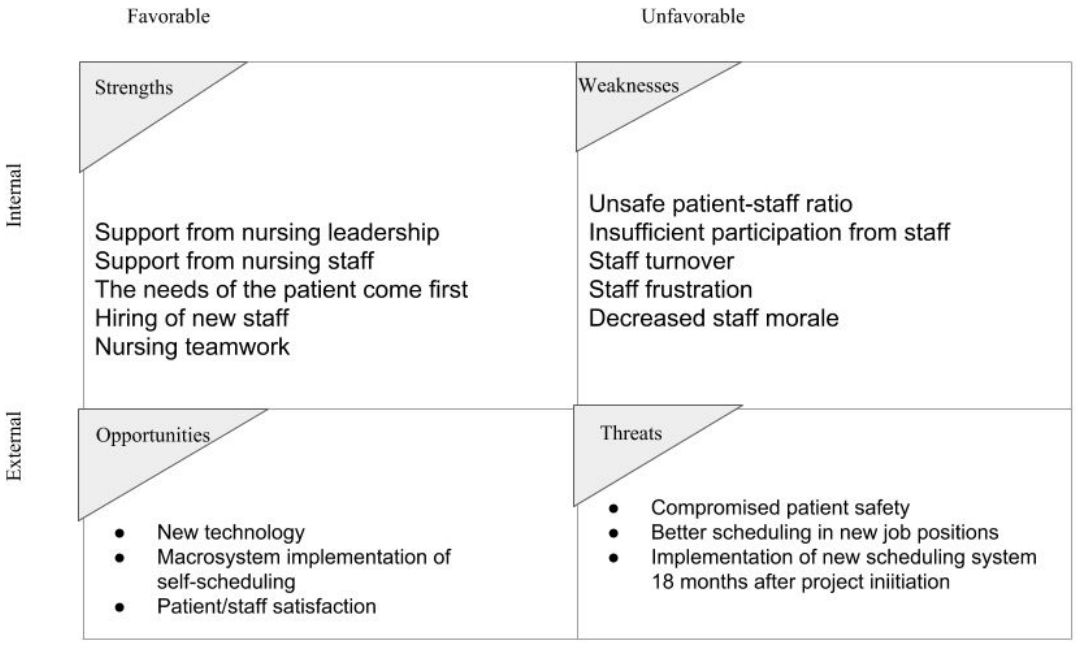
1:2 ratio of nurses to patients is 12 Nursing Hours Per Patient Day (NHPPD)

Work Standard is predetermined by quality level of care

Acuity Adjusted for patient days based on level of care needed

90th Cohort Percentile = 24.98 HPPD

Appendix B


Favorable
Unfavorable
Internal
External
Strengths
Support from nursing leadership
Support from nursing staff
The needs of the patient come first
Hiring of new staff
Nursing teamwork
Weaknesses
Unsafe patient-staff ratio
Insufficient participation from staff
Staff turnover
Staff frustration
Decreased staff morale
Opportunities
New technology
Macrosystem implementation of self-scheduling
Patient/staff satisfaction
Threats
Compromised patient safety
Better scheduling in new job positions
Implementation of new scheduling system 18 months after project iniitiation

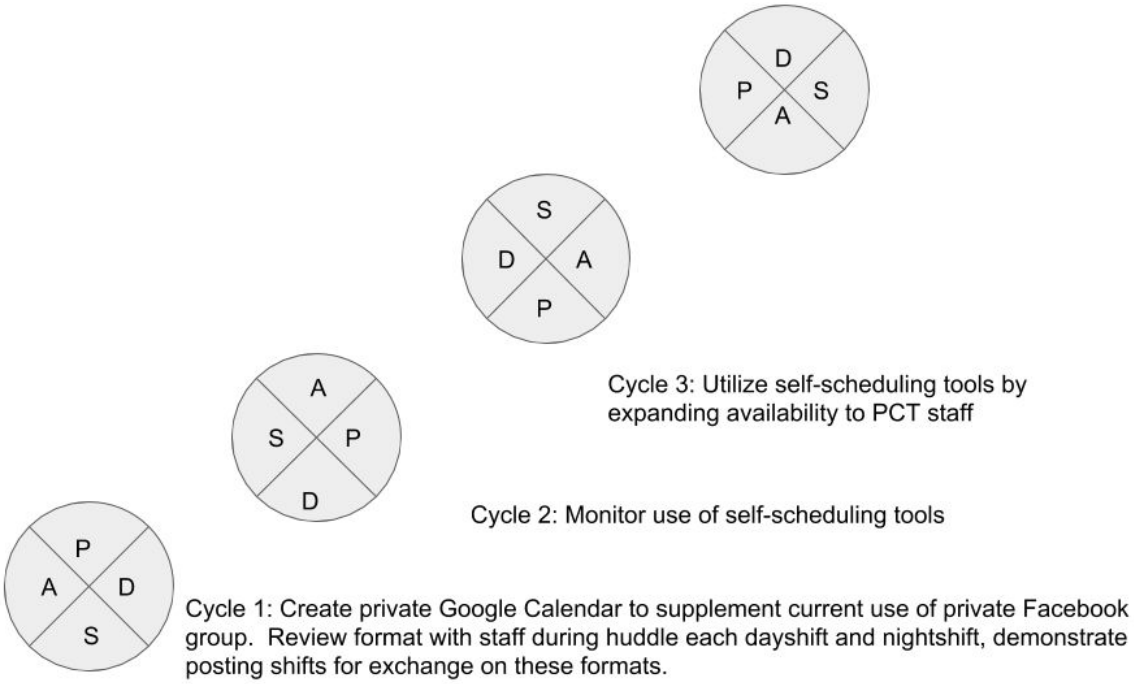
Appendix C

Return on Investment

Labor Costs	**First year**	**Second year**
Clinical Nurse Leader Wages	$107,460	$107,460
Registered Nurse Wages	$70,000	$70,000
Turnover cost per RN	$50,000	$50,000
Recruitment	$10,000	$10,000

Appendix D

Aim: Self-scheduling autonomy among nursing staff of 4 South to reduce turnover within the unit, providing consistent nursing care to patients.



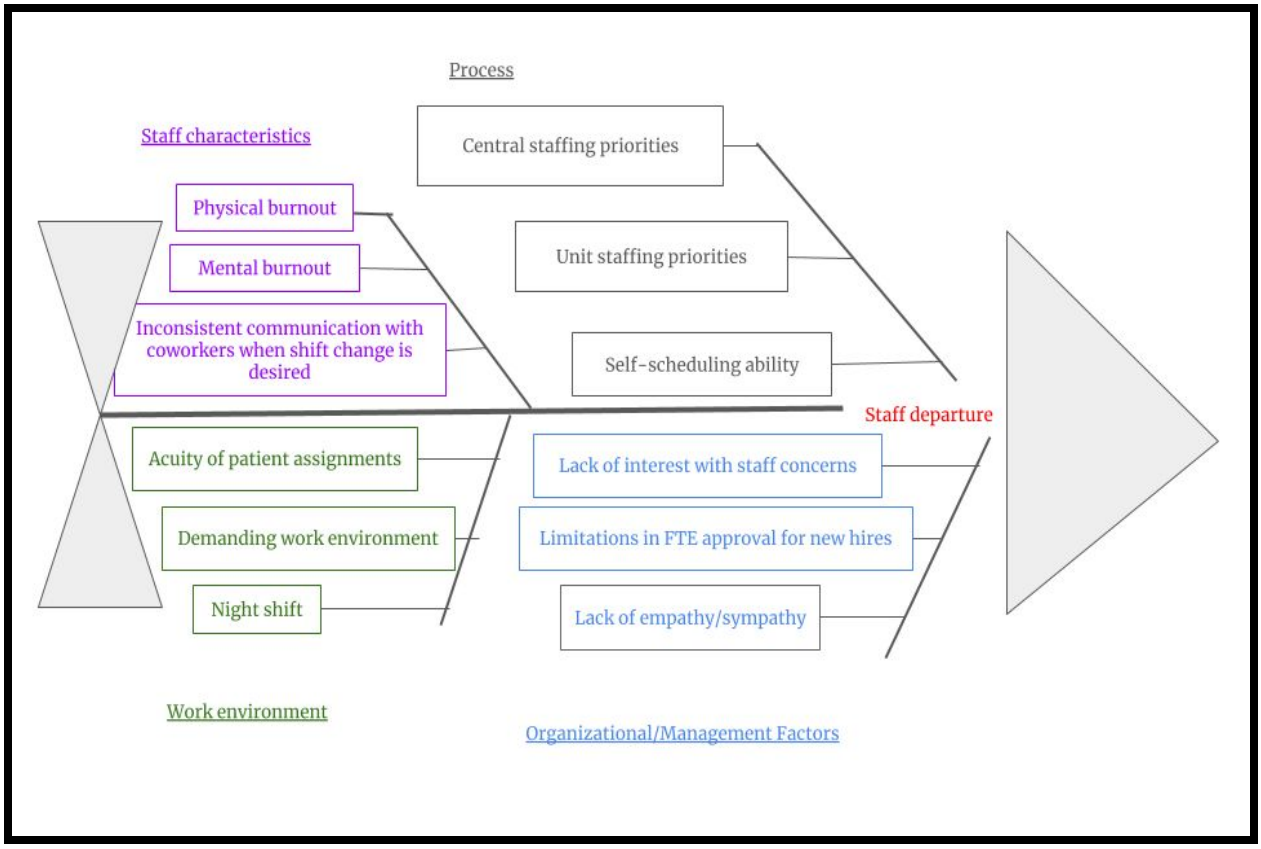
Appendix E

Measures	Data Source	Target
<u>Outcome</u> ● Control over schedule	Staff survey: evaluation of self-scheduling tools	100%
● Sufficient staffing each shift	Team Leader analysis	90-100%
● Staff satisfaction	Staff survey: evaluation of self-scheduling tools	90-100%
● Reduced staff turnover	Nurse Manager analysis	10%
<u>Process</u> ● Participation in self-scheduling tools	Staff survey: evaluation of self-scheduling tools	100%
● Patient satisfaction	Patient survey: Observation of patient care as function of staffing: HCAHPS Survey	≥ 77%
<u>Balancing</u> ● For reducing staff turnover: Make sure reasons for staff turnover are not due to undesired schedule	Staff survey: reasons for leaving current position	0%

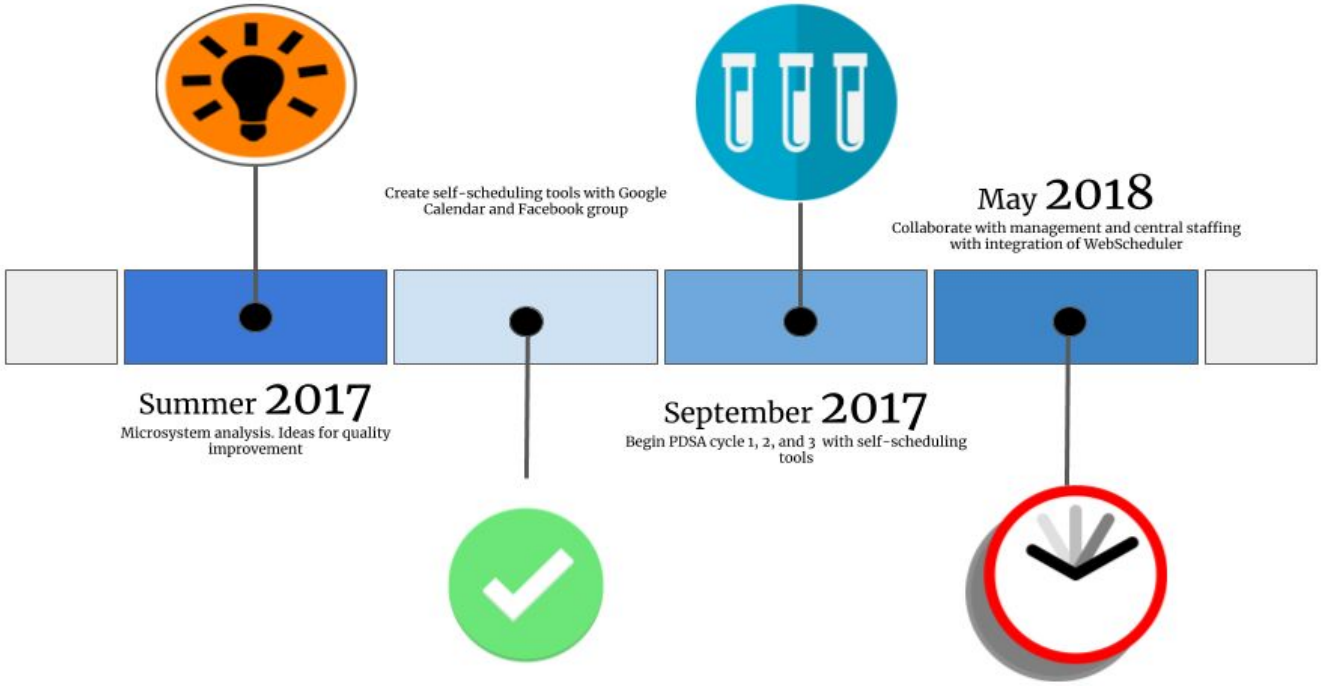
Appendix F

Name _____ **Shift** _____	**Hire date** _____
Are you satisfied with the current scheduling process?	How difficult is it to switch shifts?
What have you found favorable about how scheduling is done now?	How would you compare the current scheduling process to other places that you have worked?
What is the most troublesome aspect of our current scheduling process?	
How often do you get the time off that you request?	Have you considered leaving this job within the past year related to scheduling concerns?

Appendix G


Process
Staff characteristics
Central staffing priorities
Physical burnout
Mental burnout
Unit staffing priorities
Inconsistent communication with coworkers when shift change is desired
Self-scheduling ability
Staff departure
Acuity of patient assignments
Lack of interest with staff concerns
Demanding work environment
Limitations in FTE approval for new hires
Night shift
Lack of empathy/sympathy
Work environment
Organizational/Management Factors

Appendix H


Summer 2017
Microsystem analysis. Ideas for quality improvement
Create self-scheduling tools with Google Calendar and Facebook group
September 2017
Begin PDSA cycle 1, 2, and 3 with self-scheduling tools
May 2018
Collaborate with management and central staffing with integration of WebScheduler